1. Demographic Information

Background:

In early 2020 the Ohio Articulation and Transfer Network (OATN) held discussions with the Ohio Guaranteed Transfer Pathway (OGTP) faculty panels in the areas within Health Sciences to explore transfer pathways. During discussion, the OGTP Health Sciences panels recommended the creation of a TAG in the area of Anatomy and Physiology in order to better facilitate transfer for these commonly required courses. The Ohio Articulation and Transfer Network (OATN) sent out a call for statewide nominations to assist with this work. An Anatomy and Physiology TAG writing panel was formulated with content matter experts to meet and discuss TAG creation. Initial meetings led to the dissemination of statewide research that identify department courses, pre-requisites, lab components, and institutional course credit hours.

After some discussion, the writing panel has recommended core competencies for the TAG area of Anatomy and Physiology I & II (full-year sequence) with lab. The proposed course sequence will require a laboratory component and ranges in 8-10 credit hours.

What we need from you:

Please arrange to have the appropriate faculty at your institution complete the survey as soon as possible but no later than Friday, February 19, 2021. We are collecting only one representative response per institution.

The survey asks your institution if they agree or disagree with proposed Anatomy and Physiology I & II (full-year sequence) with lab core competencies. You will find a copy of the proposed TAG course core competencies attached as reference.

Thank you in advance for your assistance. If you have any questions, contact Jessi Spencer, Director for Policy, Budget, and Constituent Relations, at 614-728-4706 or jspencer@highered.ohio.gov or Candice Grant, Director for Ohio Guaranteed Transfer Pathways, at 614-466-4136 or cgrant@highered.ohio.gov.

* 1. Demographic Information about the Person Completing this Survey

Name	
Institution	
Department	
Title	
Email	
Phone	

* 2. Please Indicate the Type of Institution that you represent

- ◯ Two-Year Institution
- ◯ Four-Year Institution

2. Anatomy and Physiology I & II (Full-Year Sequence) with Lab

1. Do you agree with the proposed credit hour range?

	Yes, I agree	No, I do not agree
8-10 semester hours	○	○

2. Do you agree with the proposed pre-requisite?

	Yes, I agree	No, I do not agree
High School Chemistry or Biology or Equivalent or Background in Science Necessary as Determined by Institution	○	○

3. Do you agree with the proposed lab requirement?

	Yes	No
3 hours lab per week	○	○

* 4. Do you agree with Core Competency #1?

	Yes, should be essential	Yes, should be non-essential	No
1. Body Plan & Organization*(Essential) a. Anatomical position b. Body planes and sections c. Body cavities and regions d. Directional terms e. Basic terminology f. Levels of organization g. Survey of body systems	○	○	○

* 5. Do you agree with Core Competency #2?

	Yes, should be essential	Yes, should be non-essential	No
2. Homeostasis* (Essential) a. Definition b. General Types of homeostatic mechanisms	○	○	○

* 6. Do you agree with Core Competency #3?

	Yes, should be essential	Yes, should be non-essential	No
3. Chemistry & Cell Biology (Note: This core concept is provided for A&P courses that do not have a prerequisite (or prerequisites) class which includes both chemistry and cell biology. Content covered by required prerequisite courses does not need to be repeated in Anatomy & Physiology)* (Essential) a. Atoms and molecules b. Chemical bonding c. Inorganic compounds and solutions d. Organic compounds e. Energy transfer using ATP f. General organization of a cell g. Cellular membrane structure and function h. Mechanisms for movement of materials across plasma (cell) membranes i. Membrane potential j. Organelles k. Protein synthesis l. Cellular respiration (introduction) m. Cell cycle	○	○	○

* 7. Do you agree with Core Competency #4?

	Yes, should be essential	Yes, should be non-essential	No
4. Histology* (Essential) a. Overview of histology and tissue types b. Microscopic anatomy, location, and functional roles of epithelial tissue c. Microscopic anatomy, location, and functional roles of connective tissue d. Microscopic anatomy, location, and functional roles of muscle tissue e. Microscopic anatomy, location, and functional roles of nervous tissue f. Membranes (mucous, serous, cutaneous, and synovial) g. Intercellular connections (cell junctions) h. Tissue growth, modification, and repair			

8. Do you agree with Core Competency #5?

	Yes, should be essential	Yes, should be non-essential	No
5. Integumentary System* (Essential) a. General composition and functions of the integumentary system and the subcutaneous layer (hypodermis or superficial fascia) b. Gross and microscopic anatomy of the integument and subcutaneous later (hypodermis and superficial fascia) c. Roles of specific tissue layers of skin and the subcutaneous later (hypodermis and superficial fascia) d. Structure and function of epidermal derivatives (accessory structures of the integument) e. Application of homeostatic mechanisms f. Predictions related to disruption of homeostasis	○	○	○

9. Do you agree with Core Competency #6?

	Yes, should be essential	Yes, should be non-essential	No
6. Skeletal System & Articulations* (Essential) a. General functions of the skeletal system b. Structural components – microscopic anatomy c. Structural components – gross anatomy d. Physiology of embryonic bone formation (ossification or osteogenesis) e. Physiology of bone, growth, repair, and remodeling f. Organization of the skeletal system g. Bones of the skeleton h. Classification, structure, and function of joints (articulations) i. Application of homeostatic mechanisms j. Predictions related to disruption of homeostasis			

10. Do you agree with Core Competency #7?

	Yes, should be essential	Yes, should be non-essential	No
7. Muscular System* (Essential) a. General functions of muscle tissue b. Identification, general location, and comparative characteristics of skeletal, smooth, and cardiac muscle tissue c. Detailed gross and microscopic anatomy of skeletal muscle d. Physiology of skeletal muscle contraction and relaxation e. Skeletal muscle metabolism f. Principles and types of whole muscle contraction g. Nomenclature of skeletal muscles h. Location, general attachments, and actions of the major skeletal muscles i. Groups actions of skeletal muscles j. Lever systems k. Smooth muscle l. Application of homeostatic mechanisms m. Predictions related to disruption of homeostasis	○	○	○

11. Do you agree with Core Competency #8?

	Yes, should be essential	Yes, should be non-essential	No
8. Nervous System* (Essential) a. General functions of the nervous system b. Organization of the nervous system c. General anatomy of the nervous system d. Protective roles of cranial bones and vertebral column, meninges, and cerebrospinal fluid (CSF) e. Neurons f. Neuroglial (glial) cells g. Neurophysiology h. Neurotransmitters, neuromodulators, and synaptic transmission i. Integration of neural information j. Structural and functional organization of the brain k. Cranial nerves l. Structural and functional organization of the spinal cord m. Spinal nerves n. Reflexes and their roles in nervous system function o. Structure and function of sensory and motor pathways p. Autonomic nervous system (ANS) q. Application of homeostatic mechanisms r. Predictions related to disruption of homeostasis	○	○	○

12. Do you agree with Core Competency #9?

	Yes, should be essential	Yes, should be non-essential	No
9. General & Special Senses* (Essential) a. Sensory receptors b. Tactile receptors c. Gross and microscopic anatomy of the eye d. Visual pathways e. Olfaction f. Gustation g. Gross and microscopic anatomy of the ear h. Auditory pathways i. Equilibrium j. Application of homeostatic mechanisms k. Predictions related to disruption of homeostasis			

13. Do you agree with Core Competency #10?

	Yes, should be essential	Yes, should be non-essential	No
10. Endocrine System* (Essential) a. General functions of the endocrine system b. Chemical classification of hormones and mechanism of hormone actions at receptors c. Control of hormone secretion d. Endocrine control by the hypothalamus and pituitary gland e. Endocrine structures and their hormones f. Local chemical messengers g. Hormonal response to stress h. Application of homeostatic mechanisms i. Predictions related to disruption of homeostasis			

14. Do you agree with Core Competency #11?

	Yes, should be essential	Yes, should be non-essential	No
11. Cardiovascular System* (Essential) a. General functions of the cardiovascular system b. Composition of blood c. Hematopoiesis (hemopoiesis) d. Hemostasis e. ABO and Rh blood grouping f. Gross and microscopic anatomy of the heart g. Physiology of cardiac muscle contraction h. Blood flow through heart i. Electrical conduction system of the heart and the electrocardiogram j. Cardiac cycle k. Regulation of cardia output (CO), stroke volume (SV0, and heart rate (HR) l. Anatomy and functional roles of the different types of blood vessels m. Systemic and pulmonary circuits (circulations) n. Fetal (prenatal) versus postnatal circulation o. Blood pressure and its functional interrelationships with cardiac output (CO), peripheral resistance, and hemodynamics p. Application of homeostatic mechanisms q. Predictions related to disruption of homeostasis	○	○	○

15. Do you agree with Core Competency #12?

	Yes, should be essential	Yes, should be non-essential	No
12. Lymphatic system & Immunity* (Essential) a. General functions of the lymphatic system b. Lymph and lymphatic vessels c. Lymphatic cells, tissues, and organs d. Introduction to innate (nonspecific) and adaptive (specific) immune responses e. Innate (nonspecific) defenses f. Overview of adaptive (specific) immunity g. Antigens and antigen processing h. Lymphocytes and their role in adaptive (specific, acquired) immunity i. Antibodies and their role in adaptive (specific) immunity j. Applied immunology k. Application of homeostatic mechanisms l. Predictions related to disruption of homeostasis	○	○	○

16. Do you agree with Core Competency #13?

	Yes, should be essential	Yes, should be non-essential	No
13, Respiratory System* (Essential) a. General functions of the respiratory system b. Gross and microscopic anatomy of the respiratory tract and related organs c. Mechanisms of pulmonary ventilation d. Pulmonary air volumes and capacities e. Mechanisms of gas exchange in the lungs and tissues f. Mechanisms of gas transport in the blood g. Control of pulmonary ventilation h. Application of homeostatic mechanisms i. Predictions related to homeostatic imbalance	○	○	○

17. Do you agree with Core Competency #14?

	Yes, should be essential	Yes, should be non-essential	No
14. Digestive system* (Essential) a. Structure and functions of the digestive system b. General gross and microscopic anatomy of the gastrointestinal tract c. Peritoneum and mesenteries d. Oral cavity e. Anatomy of the pharynx f. Gross and microscopic anatomy of the esophagus g. Gross and microscopic anatomy of the stomach h. Gross and microscopic anatomy of the small intestine i. Gross and microscopic anatomy of the large intestine, rectum, and anal canal j. Gross and microscopic anatomy of the accessary digestive organs k. Motility in the gastrointestinal tract l. Physiology of digestion m. Processes of absorption n. Hormonal and neural regulation of digestive processes o. Application of homeostatic mechanisms p. Predictions related to homeostatic imbalance			

18. Do you agree with Core Competency #15?

	Yes, should be essential	Yes, should be non-essential	No
15. Nutrients & Metabolism* (Essential) a. Nutrients b. Introduction to metabolism c. Cellular respiration and metabolism of carbohydrates, fats, and proteins d. Energy balance and thermoregulation e. Application of homeostatic mechanisms f. Predictions related to homeostatic imbalance			

19. Do you agree with Core Competency #16?

	Yes, should be essential	Yes, should be non-essential	No
16. Urinary System* (Essential) a. General functions of the urinary system b. Gross and microscopic anatomy of the kidney c. Gross and microscopic anatomy of the urinary tract (i.e., ureters, urinary bladder, urethra) d. Functional process of urine formation, including filtration, reabsorption, and secretion e. Control of sodium, potassium, and water homeostasis f. Additional endocrine activities of the kidney g. Micturition (urination) h. Application of homeostatic mechanisms i. Predictions related to disruption of homeostasis			

20. Do you agree with Core Competency #17?

	Yes, should be essential	Yes, should be non-essential	No
17. Fluid/Electrolytes & Acid-Base Balance* (Essential) a. Body fluid compartments b. Regulation of body osmolarity c. Homeostasis of blood volume, blood pressure, and body osmolarity d. Potassium and calcium homeostasis e. Acid-base homeostasis and buffer systems f. Integrated control of acid-base homeostasis	○	○	○

21. Do you agree with Core Competency #18?

	Yes, should be essential	Yes, should be non-essential	No
18. Reproductive System* (Essential) a. Overview of the male and female reproductive systems b. Gross and microscopic anatomy of the male reproductive system c. Gross and microscopic anatomy of the female reproductive system d. Spermatogenesis and spermiogenesis e. Oogenesis, folliculogenesis, and the ovarian cycle f. Comparison of male and female gametogenesis g. Uterine (menstrual) cycle h. Lifespan changes within the male and female reproductive systems i. Fertilization and pregnancy j. Parturition (labor) k. Postpartum changes to the mother l. Predictions related to disruption of the reproductive system			

22. Do you agree with Core Competency #19?

	Yes, should be essential	Yes, should be non-essential	No
19. Introduction to Heredity a. Genetic variability b. Gene expression and inheritance c. Genetic testing			

23. Do you agree with Core Competency #20?

	Yes, should be essential	Yes, should be non-essential	No
20. Embryology a. Timeline of human development b. Conception through week 2 (bilaminar germinal disc) c. Embryonic period d. Fetal period	○	○	○

24. Comments:

3. Institutional Equivalent Course

1. Please indicate your institutions proposed equivalent courses for Anatomy and Physiology I & II (full-year sequence) with lab:

4. Ohio Guaranteed Transfer Pathways (OGTP)

* 1. If you agree with the proposed TAG core competencies in Anatomy and Physiology I & II (full-year sequence) with lab, do you also agree with incorporating the proposed core competencies within the Ohio Guaranteed Transfer Pathway (OGTP) of Health Sciences?

- ◯ Yes
- ◯ No

Other (please specify)

5. Survey Completion

Thank you for completing this survey!